



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/810,445 | 03/19/2001 | Kenjiro Matoba | OKI 273 | 7189 |

23995 7590 06/14/2005

RABIN & Berdo, PC
1101 14TH STREET, NW
SUITE 500
WASHINGTON, DC 20005

EXAMINER

FLANDERS, ANDREW C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2644

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/810,445

Applicant(s)

MATOBA, KENJIRO

Examiner

Andrew C. Flanders

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 31 May 2005 have been fully considered but they are not persuasive.

Regarding the arguments in response to the rejection of Claims 1, 6 and 11, Applicant asserts primarily that Davis does not teach a conversion unit for varying the amplitude of either a sequence of units of data including the last unit of a data block immediately preceding a thinned data block or a sequence of units of data including the first unit of data of a data block immediately following the thinned data block, so that the last unit of data of the immediately preceding data block will be concatenated with the first unit of data of the immediately following data block along a smooth amplitude varying curve. Applicant further asserts that Davis does not vary the amplitude of the audio signal at the end of his first segment or at the beginning of his second segment. Instead, Davis adjusts where his second segment is to begin.

Examiner agrees that Davis adjusts where his second segment is to begin. However, that is in itself, teaching the varying of the amplitude of that window that is being shifted. That is the primary purpose of Davis adjusting the window. The shifting of the window is to select a reasonable amplitude level to join the two segments. By moving the window, Davis is actually varying the amplitude of the second segment. Reading the claim limitations as broadly as possible the shifting of the window alters the window's amplitude and thus is a conversion unit for varying the amplitude of a

sequence of units of data including the first unit of data of the immediately following the thinned data block. As such the rejection stands.

Applicant further asserts that in claim 11, a second sequence of data blocks is formed by removing data blocks from a first sequence with each data block in the first sequence having the same number of units of data. As a result of the thinning in claim 11, the data blocks in the second sequence must necessarily also have the same number of units of data, because the second sequence represents what remains of the first sequence after some of the data blocks are removed from the first sequence. Applicant also asserts that the blocks of data would not remain the same size after Davis' adjustment of the approximate starting point B of his second segment.

Examiner respectfully disagrees. Applicant is asserting that the sizes of Davis blocks differ. However, this is untrue. It is actually the amount of blocks that differ in the Davis reference. The sizes of the audio blocks remain the same. To further clarify, Davis discloses converting the audio signal to a digital sample sequence; Fig. 3 element 34 and its corresponding text in the disclosure. These digital samples are what are read on the digital blocks as disclosed by applicant. Applicant is asserting that the size of these differ because the splice point is altered. However, it is shown in Fig. 3 element 43 that the splice point is shifted to the next samples, i.e. the blocks. As such, the size of the samples, i.e. the data blocks, remains the same in the Davis reference and the rejection stands.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1- 4, 6 – 9, 11, 12 and 14** are rejected under 35 U.S.C. 102(b) as being anticipated by Davis (U.S. Patent 4,757,540).

Regarding **Claims 1, 6 and 11**, Davis discloses an audio signal is converted into a sequence of samples (abstract) (i.e. an input terminal for inputting audio digital data including a sequence of data blocks each of which consists of a predetermined number of units of data), splicing together two audio segments at similar points, thereby removing the extraneous audio (Fig. 2A – D and the corresponding text in the disclosure and col. 7 lines 54 – 68) (i.e. a thinning-out unit for thinning out part of the audio digital data on a data block basis), the splicing of the two audio segments together (Figs. 1 and 2) is based on their amplitude level and changing the window in order to have two similar amplitudes (col. 3 lines 23 - 41 and Fig. 2) and first and second edit points along the sequence of samples are selected (col. 1 lines 50 – 55) (i.e. a conversion unit for varying the amplitude of either a sequence of units of data including the last unit of data of a data block immediately preceding a thinned data block or a sequence of units of data including the first unit of a data of a block immediately following the thinned data block, so that the last unit of data of the immediately preceding data block will be concatenated with the first unit of data of the immediately following data block along a smooth amplitude-varying curve), and the signal being played back (col. 7 lines 54 – 68)

(i.e. a reproducing unit for reproducing both the units of data converted by said conversion unit and units of data not converted by said conversion unit).

Regarding **Claims 2, 7 and 12**, in addition to the elements stated above regarding claims 1, 6 and 11, Davis teaches splicing two audio segments together (Figs. 1 and 2) based on their amplitude level and changing the window (i.e. block) in order to have two similar amplitudes (col. 3 lines 23 - 41 and Fig. 2) and the splice point is determined based upon slope or slope change (col. 3 lines 5 - 10) (i.e. wherein the amplitude-varying curve is calculated according to a simply increasing or decreasing function).

Regarding **Claims 3 and 8**, in addition to the elements stated above regarding claims 2 and 7, Davis teaches splicing two audio segments together (Figs. 1 and 2) based on their amplitude level and changing the window (i.e. block) in order to have two similar amplitudes (col. 3 lines 23 - 41 and Fig. 2) and first and second edit points along the sequence of samples are selected (col. 1 lines 50 - 55) (i.e. wherein the simply increasing or decreasing function is determined on the basis of the difference between the amplitude of the last unit of data of the data block immediately preceding the thinned data block and the amplitude of the first unit of data of the data block immediately following the thinned data block, the amplitude of the units of data of which the amplitude is to be varied in the immediately following data block, position information of the units of data, and the number of data in the sequence of units of data).

Regarding **Claims 4 and 9**, in addition to the elements stated above regarding claims 1 and 6, Davis teaches splicing two audio segments together (Figs. 1 and 2)

Art Unit: 2644

based on their amplitude level and changing the window (i.e. block) in order to have two similar amplitudes (col. 3 lines 23 - 41 and Fig. 2) (i.e. wherein said conversion unit integrates the sequence of units of data the amplitude of which has been varied).

Regarding **Claims 14**, in addition to the elements stated above regarding claim 11, Davis discloses an audio signal is converted into a sequence of samples (abstract) (i.e. wherein the units of data are uncompressed audio data).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 5 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (U.S. Patent 4,757,540) in view of Chauffour (U.S. Patent 5,870, 397).

Regarding **Claims 5 and 10**, in addition to the elements stated above regarding claims 1 and 6, Chauffour further discloses a packetized system with a packet header and voice encoded at a bit rate of 64 Kbits/sec (col. 1 lines 13 - 26) (i.e. wherein the units of data of each data block are compressed audio data, each data block further includes header information from which the first unit of data of the data block is obtained, and units of data following the first unit of data are decompressed on the basis of the immediately preceding unit of data of the data block). It would have been obvious

to one of ordinary skill in the art to add the elements disclosed by Chauffour to Davis' spliced audio in order to efficiently transmit the audio data over a network (see chauffeur col. 1). Transmitting digital audio (compressed or uncompressed) over a network was notoriously well known at the time of the invention and to transmit the spliced audio disclosed by Davis would have been obvious and does not show the exercise of inventive skill.

5. **Claims 13, 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (U.S. Patent 4,757,450).

Regarding **Claim 13**, in addition to the elements stated above regarding claim 12, Davis discloses determining a splice point based upon slope (col. 3 lines 5 – 10). Davis does not explicitly disclose the slope being linear. However it is obvious to one of ordinary skill in the art that the splice point could be based upon a linear slope. It is merely one of the many possible implementations available to one of ordinary skill in the art and would not require the exercise of inventive skill.

Regarding **Claims 15**, in addition to the elements stated above regarding claim 11, Davis discloses an audio signal is converted into a sequence of samples (abstract). Davis does not explicitly disclose those samples being compressed. However, it would have been obvious to one of ordinary skill in the art to use either compressed samples. Compressing audio greatly reduces the amount of storage space required to store the audio data thereby making it desirable. Compression such as mp3 was well known at the time of the invention and would not require the exercise of inventive skill to apply.

Regarding **Claim 16**, in addition to the elements stated above regarding claim 11, Davis further discloses deleting audio segments for implementing playback speed (col. 7 lines 55 – 60). Davis does not explicitly disclose the first sequence of data blocks has about twice the number of data blocks as the second sequence, the second sequence being formed by removing every other data block from the first sequence. However, it would have been obvious to do this in order to slow down the playback speed by 50%. Slowing a playback to half of its original rate is notoriously well known in the art and doing so would not require the exercise of inventive skill.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2644

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Flanders whose telephone number is (571) 272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SINH TRAN
SUPERVISORY PATENT EXAMINER

acf